## **Claims**

- [c1] 1. Sensor device on a feed pipeline carrying high voltage, comprising at least one sensor that is disposed on the pipeline and that provides a low-level output signal, and comprising an evaluation circuit to which the sensor output signals are applied, characterized in that the sensors are operated from a mains-voltage source via an electrical isolating stage and the sensors are connected to the evaluation circuit via an electrical isolating stage or wire-lessly.
- [c2] 2. Sensor device according to Claim 1, characterized in that a plurality of sensors is connected to the mains-voltage source and the evaluation circuit via the electrical isolating stages.
- [c3] 3. Sensor device according to Claim 1, characterized in that the electrical isolating stages are disposed in the vicinity of the sensors.
- [c4] 4. Sensor device according to Claim 1, characterized in that at least one of the electrical isolating stages comprises a transformer.

- [05] 5. Sensor device according to Claim 1, characterized in that at least one of the isolating stages comprises an optocoupler unit.
- [06] 6. Sensor device according to Claim 2, characterized in that the sensors each provide a data packet that comprises a sensor output signal and, preferably, also a sensor identifier, and in that the plurality of sensors is connected to a databus that is connected to one of the electrical isolating stages.